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(12) **United States Patent**
McPherson

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(54) **SYSTEMS AND DEVICES FOR TREATMENT OF HYPOTHERMIA AND SYSTEMS INCLUDING GARMENTS ADAPTED TO CONTROLLABLY EMIT ENERGY FOR WARMING WEARER**

(58) **Field of Classification Search**

CPC A61N 5/025; A61N 5/0625; A61N 1/403
See application file for complete search history.

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(57) **ABSTRACT**

A system for the treatment of hypothermia includes an energy source controllably operable to output energy, a controller operably associated with the energy source, an encasing-structure being conformable over a treatment region, and one or more vital sign detectors adapted to generate an electrical signal indicative of a measurement of a vital sign of a patient. The encasing-structure includes an energy-applicator device including a configuration of energy-delivery elements disposed in association with the encasing-structure. The controller is adapted to receive the electrical signal from the one or more vital sign detectors. The controller is configured to adjust one or more treatment parameters based at least in part on the electrical signal.

18 Claims, 7 Drawing Sheets

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A61B 5/01	(2006.01)
A61B 5/0205	(2006.01)

(52) **U.S. Cl.**

CPC **A61F 7/02** (2013.01); **A61B 5/01** (2013.01); **A61F 7/007** (2013.01); **A61B 5/02055** (2013.01); **A61F 2007/0002** (2013.01); **A61F 2007/0036** (2013.01); **A61F 2007/0233** (2013.01)

